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IWASAWA THEORY FOR HIDA DEFORMATIONS OF $GL(2)$

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Abstract

Iwasawa theory for class groups of cyclotomic fields was developed by Iwasawa in late 50's. After Iwasawa, a series of generalizations of Iwasawa theory is studied by various people. For example, Iwasawa theory was generalizad to elliptic curves and modular forms. After a brief introduction, we propose a generalization of Iwasawa theory based on the theory of Galois deformations. Especially, we recall our work for two-variable Hida deformations which proves the half of expected Iwasawa Main Conjecture. If time permits, I will comment on possible generalizations of our work for Hida deformations of more general reductive groups.

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